than 30 would cause the rate of sustained virological response lower) [2] though the accurate causes for the association remain unclear. In the study by Feld *et al.* [1], the body mass index were not significantly different amongst the groups, however, the authors did not examine the effect of body mass index on the high rates of sustained virologic response.

In addition, it is confirmed that non-Hispanic whites are more likely to have a sustained virologic response than black persons regardless of the proportions of patients with genotype 1 infection [3]. However, the proportions of black persons were overall low in the study by Feld *et al.* [1]. Are there any relations of the high rates of sustained virological response 24 weeks after the end of treatment to the low proportions of black persons? In other words, could danoprevir/r, mericitabine plus PegIFNα-2a/ribavirin produce high rates of sustained virological response 24 weeks after the end of treatment in prior partial and null responders in black persons? The above mentioned important issues should be assessed to help further refine treatment regimens in these partial and null responders.

Conflict of interest

The author declared that they do not have anything to disclose regarding funding or conflict of interest with respect to this manuscript.

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Ze-Zhou Song*
Department of Ultrasound, Zhejiang Provincial People's Hospital, 158 Shangtang Road, Hangzhou, Zhejiang Province, China
*Corresponding author. Fax: +86 571 8706 1007.
E-mail address: zezhou_song@126.com

Is skin mottling a predictor of high mortality in non-selected patients with cirrhosis admitted to intensive care unit?

To the Editor:
In the March issue of the *Journal of Hepatology*, Galbois and colleagues investigated the impact of skin mottling on outcome in 42 patients with cirrhosis admitted in intensive care unit (ICU) for septic shock [1]. They reported that the large extent of skin mottling as well its persistence were two strong predictors of mortality. Indeed, in-ICU mortality reached 83% in cirrhosis patients with septic shock having skin mottling at admission, and none of the patients with persistent mottling for more than six hours survived [1]. However, the study focused exclusively on patients with septic shock, a subset of patients known to have a particularly high mortality rate. As discussed by the authors, this type of relationship between the occurrence of skin mottling and the low survival rate cannot necessarily be extrapolated to cirrhosis patients admitted in ICU for reasons other than septic shock.

We recently reported the impact of skin mottling on outcome in a non-selected population of patients admitted to ICU [2]. More precisely, we extracted data from our cohort in order to assess the prognosis of all cirrhosis patients with skin mottling whatever the reason for admission. Over a one-year period, 40 of the 791 patients included had cirrhosis (5.1%), which is in keeping with the usual rates reported in general ICUs [3,4]. The proportion of patients with skin mottling was significantly higher in patients with cirrhosis than in patients without cirrhosis: 45% (18 of 40 patients) *vs.* 28% (212 of 751 patients) ($p = 0.03$), which is slightly lower than the 57% rate reported by Galbois and colleagues [1]. However, the mortality rate of cirrhosis patients with mottling in our cohort was only 22%, a rate markedly lower than that reported in their study. Even though this was probably due to the small sample of patients studied, we did not find significant difference in mortality rate between cirrhosis patients with skin mottling and those without skin mottling (Table 1). Even in patients with persistent skin mottling for more than six hours, in-ICU mortality was only 29% (4 of 14 patients), which is not commensurate with the 100% mortality rate reported by the present study in cirrhosis patients with septic shock [1]. The strikingly low mortality rate in our cohort is probably explained by lower severity. Indeed, the simplified acute physiology score (SAPS) II and the sequential organ failure assessment (SOFA) score were only 41 [31–58] and 6.5 [3.3–11.8] in our study versus 69 [52–86] and 14.0 [12.0–18.0] in the study by Galbois and colleagues. It has been shown that the SAPS II score was a strong predictor of mortality, even in septic patients with cirrhosis [3]. The SOFA score, which assesses the number of organ dysfunctions induced during septic shock [5], is also a relevant predictor of mortality in cirrhosis patients [6]. Despite a trend over recent years favouring better outcome, admission to ICU for septic shock remains associated with high mortality, especially in cirrhosis patients who are at high risk for multiple organ failure [3]. Although skin mottling could indicate suboptimal hemodynamic resuscitation, the extremely high mortality rate reported by Galbois and colleagues may be due to the specific population of patients studied, i.e. the patients with cirrhosis admitted to ICU for septic shock and multiple organ dysfunctions. It has been found that skin mottling was a risk factor of mortality not only in patients with septic shock [7] but also in non-selected patients admitted in ICU for another reason [2]. From our

Table 1. Baseline characteristics of the 40 cirrhosis patients admitted to our ICU over a one-year period.

	Skin mottling (n = 18)	No skin mottling (n = 22)	*p* value
Age, years, median (interquartile)	59 (57-63)	59 (49-68)	0.99
Sex, male, n (%)	11 (61)	18 (82)	0.17
Child-Pugh class C, n (%)	5 (28)	2 (9.1)	0.21
Child-Pugh score, median (interquartile)	7 (5-12)	7 (6-9)	0.92
Diagnosis at admission			0.11
Cardiac arrest, n (%)	3 (17)	1 (4.5)	
Shock, n (%)	7 (39)	4 (18)	
Acute respiratory failure, n (%)	1 (5.6)	7 (32)	
Coma, n (%)	4 (22)	8 (36)	
Others, n (%)	3 (17)	2 (9.1)	
At intensive care unit admission			
Simplified acute physiology score II, median (interquartile)	46 (35-62)	38 (26-45)	0.08
Sequential organ failure assessment score, median (interquartile)	8.5 (5.0-12.5)	5.5 (2.0-10.3)	0.06
During intensive care unit stay			
Mechanical ventilation, n (%)	13 (72)	8 (36)	0.03
Vasopressor use, n (%)	9 (50)	5 (23)	0.10
Renal replacement therapy, n (%)	5 (28)	1 (4.5)	0.07
Outcomes			
Length of intensive care unit stay, days, median (interquartile)	10 (6-13)	4 (3-6)	0.01
In-intensive care unit mortality, n (%)	4 (22)	2 (9.1)	0.38

Data are expressed in median (interquartile) according to their distribution using the Kolmogorov–Smirnov test. Continuous variables are compared using the Mann–Whitney test, and categorical variables using the Fisher exact test.

observations, the impact of skin mottling on outcome of cirrhotic patients nonetheless seems to be markedly lower when they are admitted to ICU for a reason other than septic shock.

Therefore, skin mottling could be an early severity sign associated with worse outcomes. This easy-to-assess clinical sign could help to promptly discriminate high-risk patients requiring ICU admission or treatment intensification to relieve this sign of poor peripheral perfusion.

Conflict of interest

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Rémi Coudroy*
CHU de Poitiers, Service de Réanimation Médicale, Poitiers, France
CIC 1402 (ALIVE group), Université de Poitiers, Poitiers, France
*Corresponding author.
E-mail address: remi.coudroy@chu-poitiers.fr

Angéline Jamet
CHU de Poitiers, Service de Réanimation Médicale, Poitiers, France

Arnaud W. Thille
CHU de Poitiers, Service de Réanimation Médicale, Poitiers, France
CIC 1402 (ALIVE group), Université de Poitiers, Poitiers, France